

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION IX

75 Hawthorne Street San Francisco, CA 94105



July ___, 2017

Mark Manfredi Red Hill Regional Program Director Naval Facilities Hawaii 400 Marshall Road Joint Base Pearl Harbor Hickam, Hawaii 96860

Re: Conditional Approval of Scope of Work for Destructive Testing Dated May 30, 2017 submitted to the Regulatory Agencies Pursuant to Section 5.3.2 of the Red Hill Administrative Order on Consent .

Dear Mr. Manfredi:

The U.S. Environmental Protection Agency ("EPA") and Hawaii Department of Health ("DOH"), collectively the "Regulatory Agencies", have reviewed the document titled "Red Hill Bulk Fuel Storage Facility Scope of Work for Destructive Testing" dated May 30, 2017. The primary objective of the destructive testing work is to validate in the field the performance of the non-destructive testing ("NDE") program designed to characterize the condition of the steel plate. Condition of this steel plate is critical because it acts as a liquid tight membrane between the fuel and the concrete structure of the tank. To maximize the effectiveness of this validation, the Regulatory Agencies seek full transparency in the testing design and implementation, and suggest the Navy and DLA provide transparency to external subject matter experts as well. The Regulatory Agencies vision of the process to be used for a successful program is including in the attached flowchart.

In addition to the primary goal of this NDE validation effort, the removal of the steel plate will create an opportunity to collect additional data related to the condition of the concrete and presence of water and/or fuel behind the steel plate at the coupon locations. Although this data is not necessary to meet the objectives of this NDE validation, this data may prove valuable for other AOC requirements such as data supporting Risk Assessment assumptions and/or data supporting migration pathway assumptions.

The Regulatory Agencies approve this document pursuant to AOC section ____ with the following conditions:

- 1. The Navy and DLA shall seek concurrence from the Regulatory Agencies on the specific plan for NDE of each tank that will be part of the NDE verification described in the AOC 5.3.2 SOW.
- 2. The process for coupon selection shall involve the Regulatory Agencies and SMEs. The Regulatory Agencies and external subject matter experts shall be given an opportunity to participate in the review of the NDE data and the selection of locations and configuration for coupon sampling.
- 3. The Navy and DLA shall seek concurrence from the Regulatory Agencies for a detailed plan describing coupon evaluation. This should be included in the contractors NDE Plan.
- 4. The Navy and DLA shall seek concurrence from the Regulatory Agencies for a detailed plan describing the laboratory testing protocol for coupon testing.
- 5. The Navy and DLA shall seek concurrence from the Regulatory Agencies for process to be used to compare the data collected from the destructive testing to the NDE results prior to implementation of the destructive testing plan. And once the work is implemented, the Navy and DLA shall submit a report describing the correlation between the NDE and destructive testing results. The format and content of this correlation report shall be included in the destructive testing plan.
- 6. The Navy and DLA shall seek concurrence from the Regulatory Agencies for the detailed plan describing how the concrete exposed during destructive testing will be characterized / sampled.
- 7. The decision criteria for expansion of destructive testing should be developed prior to NDE implementation and the Navy and DLA shall seek concurrence from the Regulatory Agencies on this decision criteria.
- 8. Handling and documentation procedures for samples and data should be planned thoroughly to avoid data validity challenges.

Sincerely,

Bob Pallarino EPA Red Hill Project Coordinator Steven Chang, P.E. DOH Red Hill Project Coordinator

Enclosure

cc: Captain Richard D. Hayes III (via email) John Montgomery, Navy (via email)

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